

REMARKS

In this paper, claims 1, 9 and 18 are currently amended, and claims 25 and 26 have been added. After entry of the above amendment, claims 1-26 are pending.

New claims 25 and 26 read on the elected species, Figs. 10 and 11.

Claims 1-24 were rejected under 35 U.S.C. §112 as failing to comply with the written description requirement. The phrase objected to by the examiner, "when viewed horizontally," has been deleted from claim 1.

The office action states that claims 1, 13 and 18 are directed to an invention that is not patentably distinct from claims 1, 8, 18 and 19 of commonly assigned reissue application no. 11/389,658 ("Appl. '658"). The office action further provisionally rejected claims 1, 13 and 18 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 8, 18 and 19 of copending Appl. '658. This basis for rejection is respectfully traversed.

The first paragraph at page 7 of the office action states that the position of mounting member (103) in Appl. '658 can be adjusted by rotating or turning mounting sleeve (103A) relative to handlebar (101). The applicant understands the meaning of this statement as follows: In the device shown in Fig. 3 of Appl. '658, for example, a not-shown but well-known fixing bolt normally extends through the opening in the lower right side surface of mounting sleeve (103A) (shown as an oval opening because of the perspective of Fig. 3) and screws into the facing lower left side of mounting sleeve (103A) in order to tighten mounting sleeve around handlebar (101). It is assumed that the examiner means that the fixing bolt could be loosened so that mounting sleeve (103A) releases its grip on handlebar (101), and then mounting member (103) can be rotated (turned) coaxially around handlebar (101) (rotated or turned clockwise or counterclockwise in Figs. 4 and 5 in Appl. '658). If that is not what the examiner means, then the examiner is requested to clarify the intended meaning.

The second paragraph at page 7 of the office action then alleges that it would have been obvious to make such a rotation of mounting member (103) so that the angle defined by the

handlebar mounting axis (HB) and the rotational axis (X) is substantially 90°. However, claim 1 of this application recites “wherein the *pivot axis (P)* is inclined relative to the handlebar mounting axis (HB).” The reference in the office action to the relationship between the *rotational axis (X)* and the handlebar mounting axis (HB) is irrelevant. Pivot axis (P) will never become inclined relative to handlebar axis (X) simply by rotating mounting member (103) coaxially around handlebar (101). During such rotation, pivot axis (P), which is coaxial with pivot shaft (216) in Fig. 3 of Appl. ‘658, will always be parallel to handlebar mounting axis HB. The claims in this application recite the relationship between the *pivot axis (P)* and the handlebar axis (HB), and there is no reason to modify the pivot axis (P) in Appl. ‘658 to be inclined relative to handlebar axis (HB) as required by claim 1.

Finally, claim 1 in this application recites “wherein the interface member moves in a direction toward a plane (PL) that contains the handlebar mounting axis (HB) and is parallel with the rotational axis (X) when the first operating body moves from the first home position toward the first shift position,” and there is no motivation to do so based on claims 1, 8, 18 and 19 in Appl. ‘658.

Claims 1-17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Shahana (EP 1,134,158 A2). This basis for rejection is respectfully traversed.

As an initial matter, the office action makes a special note of how Shahana is cited as a category “X” reference in the European search report. That is true. It is also true that the European claims corresponding to the claims in this application were granted long ago for the same reasons noted in this response and in prior responses to office actions in this case. See, e.g., claim 1 in European Patent No. 1,642,821 B1.

It appears that perhaps the problem with this case lies in the fact that, as stated in the last sentence of the first paragraph of page 18 of the office action, the examiner believes that claim 1 in this application “reads on” the first embodiment shown in Figs. 1-7. That is not true. In the embodiment shown in Figs. 1-7, pivot axis (P) (Fig. 3) is parallel to handlebar mounting axis (HB) (both axes are perpendicular to the page in Figs. 4 and 5, with pivot axis (P) being coaxial with pivot shaft (216)), and the axes always will be parallel to each other. For example, if mounting member (103A) were to be rotated or turned clockwise or counterclockwise in Figs. 4 or 5, which is the

modification suggested by the examiner, then handlebar mounting axis (HB) and pivot axis (P) will always be perpendicular to the page (i.e., parallel to each other). The claims in this application represent an improvement over the device shown in Figs. 1-7 in that the pivot axis (P) recited in claim 1 is inclined relative to the handlebar axis (HB), and this feature prevents the claims from reading on the embodiment shown in Figs. 1-7.

The text in the paragraph bridging pages 9 and 10 of the office action reiterates the position that it would have been obvious to rotate Shahana's mounting sleeve (103A) about handlebar (101) so that the pivot axis (P) is inclined relative to the handlebar axis (HB). However, as noted above, such rotation (i.e., clockwise or counterclockwise rotation of the embodiment shown in Figs. 1-7 per the view shown in Figs. 4 and 5) would not cause pivot axis (P) to be inclined relative to handlebar axis (HB).

As for the legal precedent regarding the arrangement of parts cited in MPEP 2144.04 (cited in the paragraph bridging pages 9 and 10), such precedent is clear that it does not apply when rearrangement of parts modifies the operation of the device. As aptly noted in *Ex parte Chicago Rawhide Mfg. Co.* 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984):

"The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device."

A comparison of the elected species shown in Figs. 10 and 11, for example, with the embodiment shown in Figs. 1-7 shows that the operation is entirely different from the rider's perspective. In the device shown in Figs. 1-7, a downward sliding motion of the thumb operates interface member (202) and operating body (220). In the elected embodiment shown in Fig. 10, the cyclist operates interface member (202) and operating body (220) by a rearward and/or lateral sliding motion of the thumb or finger. In the elected embodiment shown in Fig. 11, the cyclist

operates interface member (202) and operating body (220) by a forward and/or lateral sliding motion of the thumb or finger.

The first paragraph at page 15 of the office action alleges that the applicant admitted that Shahana's pivot axis (P) is inclined relative to the handlebar axis (HB). That is not true. The quoted text referred to what was recited in claim 1, and it simply provided the viewing reference used to determine whether or not a pivot axis (P) in a prior art reference is inclined relative to the handlebar axis (HB). The applicant consistently argued that the pivot axis (P) in Shahana's embodiment shown in Figs. 1-7 is parallel to the handlebar axis (HB) and is *not* inclined relative to the handlebar mounting axis (HB).

The examiner's reliance on legal precedent from the chemical arts at page 15 and in other places of the office action is misplaced. Because of the unpredictability of molecular structures in the chemical arts, it is reasonable to assume that similar molecular structures may behave similarly. However, this application is directed to a mechanical device, and there is no doubt how the components in mechanical devices function, especially based on the recited pivot axes in this case. Furthermore, it is not the similarities of devices that determine patentability, but the differences. *Graham et al. v. John Deere Co.* 383 US 1, 148 USPQ 459 (1966). In any event, the fact that Figs. 2 and 4 of this application are virtually identical to Figs. 2 and 4 of EP '158 or US '060 is irrelevant because, as noted above, the claims in this application do *not* read on that embodiment. Claim 1 is *not* generic to that embodiment.

At page 17 of the office action, the examiner again takes the position that varying the path of movement of Shahana's sliding operating body (220) by plus or minus thirty degrees relative to the plane of the ratchet teeth (171) (as stated at paragraph [0017] of EP '158) results in pivot axis (P) being inclined relative to the handlebar axis. Substantial evidence does not support such an allegation. This is best seen from Figs 4 and 5 of Shahana, since those Figures show ratchet teeth plane (T), sliding operating body (220), interface member (202) and pivot shaft (216), wherein pivot shaft (216) defines pivot axis (P) that is perpendicular to the page.

In order to vary the path of movement of sliding operating body (220) by plus or minus thirty degrees relative to ratchet teeth plane (T), sliding operating body (220) would be angled plus or minus thirty degrees relative to ratchet teeth plane (T) in Figs. 4 and 5. There is no need to move interface member (202) or pivot shaft (216) at all. However, even if it were desired to move pivot shaft (216), pivot shaft (216) simply would be moved up or down in Figs. 4 and 5, and pivot shaft (216) (and hence pivot axis (P)) would remain parallel to the handlebar mounting axis (HB). Since sliding operating body (220) simply would be angled up or down in Figs. 4 and 5, there is no reason to angle pivot shaft (216) so that pivot axis (P) is angled relative to the plane of the page (and thereby be inclined relative to handlebar mounting axis (HB)), since such angling of pivot axis (P) would have no benefit, except as discovered by the applicant. There is no suggestion, express or implied, to change the orientation of Shahana's pivot axis (P).

The penultimate paragraph at page 18 of the office action refers to the statement in paragraph [0016] of Shahana that operating force receiving surface (203) of operating tab (202) is inclined relative to a horizontal axis (H) that is parallel to ratchet teeth plane (T). The office action states that such an orientation requires a reorientation of the axis of pivot shaft (216). That is incorrect. The statement in paragraph [0016] of Shahana that the operating force receiving surface (203) of operating tab (202) is inclined relative to a horizontal axis simply describes what is *actually shown* in Figs. 4 and 5, wherein operating force receiving surface (203) of operating tab (202) is inclined relative to horizontal axis (H) and the axis of pivot shaft (216) is parallel to the handlebar axis. The cited text does not suggest a modification of what is shown in Figs. 4 and 5, let alone the orientation of pivot axis (P).

The penultimate paragraph at page 19 of the office action states that the applicant merely rearranges the position of mounting sleeve (103A) relative to handlebar mounting axis (HB). That is not true. The applicant does not claim rearranging mounting sleeve (103A), nor is mounting sleeve (103A) rearranged in the disclosed embodiments. The applicant inclines pivot axis (P) relative to handlebar mounting axis (HB), and, as noted above, the resulting movement of the interface member is *not* the same as the embodiment shown in Figs. 1-7.

The last paragraph at page 19 of the office action states that the modification of the orientations of pivot axis (P) and handlebar axis (HB) is a mere matter of choice in design since the claimed structures and the function they perform are the same as the prior art. Once again, this conclusion results from the mistaken belief that the claims in this application read on the embodiment shown in Figs. 1-7. The claims *do not* read on the embodiment shown in Figs. 1-7, and, as noted above, the claimed inclination of pivot axis (P) relative to handlebar axis (HB) causes the device to operate differently from the embodiment shown in Figs. 1-7. Thus, the claims differ from the prior art both in structure and in function.

Page 21 of the office action justifies reading claim 1 on the embodiment shown in Figs. 1-7 by ignoring everything after the recited interface member. According to the examiner, the recited relationships are merely functional statements that recite the inherent results of the previously recited elements. That clearly is not true. A plurality of recited elements do not inherently dictate their relationship to each other. The text of claim 1 after the text quoted at page 21 set forth the structural relationships of the various elements and cannot be ignored.

Page 22 of the office action states that the applicant argued that Kawakami, Ose and Yamane did not show an interface member. That is not what the applicant argued. The applicant's argument was directed to the relationships of the pivot axes in those references. It bears repeating:

The Examiner cited Figs. 2 and 3 of USP 6,848,335 to Kawakami; Fig. 1 of USP 6,564,671 to Ose; and Fig. 2 of USP 6,155,132 to Yamane as evidence that it is notoriously well known to reorient the pivot axis of an interface member to accommodate the different hand positions of cyclists. However, none of those references show that. Figs. 2 and 3 of Kawakami do not show an interface member that *pivots around a pivot axis (P), wherein pivot axis (P) is inclined relative to a handlebar mounting axis (HB)* as required by claim 1. Kawakami discloses an interface member (71, 171) identical to Shahana's interface member (202) wherein the *pivot axis of interface member (71, 171) is parallel to the handlebar axis*. Ose and Yamane do not even show an interface member that is movably mounted relative to an operating body. Fig. 1 of Ose discloses interface members (74, 82) that are one-piece with an operating body (86), and Figs. 2-3 of Yamane discloses interface

members (61, 81) that are rigidly affixed to corresponding operating bodies (60, 80). At most, Ose and Yamane disclose *operating bodies* that pivot around different pivot axes. Neither Ose nor Yamane disclose or suggest *a pivot axis (P) of an interface member movably mounted to an operating body, wherein pivot axis (P) is inclined relative to a handlebar mounting axis (HB)* as required by claim 1. Decoupling the operation of the interface member from the operating body is the breakthrough that allows different operating modes to be accomplished without requiring a wholesale redesign of the entire shift control device.

As for claims 4, 5 and 18, as noted above, rotating Shahana's mounting sleeve (103A) around handlebar (101) would not change the parallel orientation of pivot shaft (216), and hence pivot axis (P), relative to handlebar mounting axis (HB).

As for claims 7 and 20, Shahana's operating force applying member (204) does not extend from the operating force receiving member (203). Both members are closely adjacent to each other for their entire lengths.

New claim 25 clarifies that, when the device is oriented such that the rotational axis (X) is vertical, the pivot axis (P) extends at least in part in a vertical direction. This clearly precludes any interpretation of Shahana that involves rotation of Shahana's mounting sleeve (103A) around handlebar (101).

Claim 26 is patentable as a minimum for its dependence on claim 25.

Accordingly, it is believed that the nonstatutory obviousness-type double patenting rejection and the rejections under 35 U.S.C. §103 and §112 have been overcome by the foregoing amendment and remarks, and it is submitted that the claims are in condition for allowance. Reconsideration of this application as amended is respectfully requested. Allowance of all claims is earnestly solicited.

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PATENT

Respectfully submitted,

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